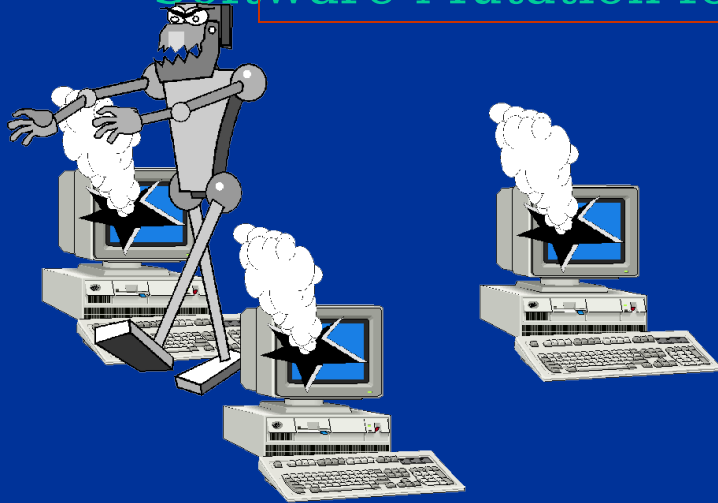# Software Mutation for Information Survivability

A single attack can quickly destroy many information systems

New Ideas

- **Diversity can help prevent a single attack from quickly destroying a large number of information systems**
- **Each replica of a critical system monitors some aspect of its own behavior**
- **To succeed, an attacker must simultaneously deceive the monitoring systems of all replicas**

Impact:

- **Diversification can make the country's information infrastructure more robust.**
- **Our software rewrite system may make it easier to fix known security loopholes.**
- **Our technology for analyzing software behavior has many other uses, including vulnerability detection & safety analysis.**

SCHEDULE

year 1	year 2
①	
	②
③	
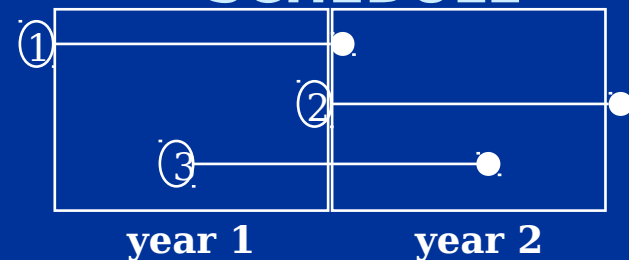
1: Analytic Model for Mutation and Survivability
2: Experiments with Diversified Softwa
3: Prototype System